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HUNGARY/Nuclear Physics - Nuclear Reactions.

Abs Jour : Ref Zhur Fizika, No 9, 1959, 19767

Author : Nemeth, János

Inst : -
Title : Theory of Nuclear Reactions III.

Orig Pub : Fiz. szemle, 1958, 8, No 10, 316-323

Abstract : For Parts I and II see Ref Zhur Fizika 1959, No 7,
14943 and No 8, 1350.

Card 1/1

NEMETH, Kalman, szobrászművesz

There is a wood statue in section 10 of the collection of old Italian sculptures in Budapest Museum of Fine Arts, on the worn surface of which there is a fresh, plate-size gilding. What is the secret of this gold spot? Elet tud 17 no.30:948 29 J1 '62.

1. Szépművészeti Museum restaurátora, Budapest.

MAGYAR, Miklos; HODSSY, Lajos; NEMETH, Karoly

Metal catalysis in technological practice. Pts. 4-5. Magy
kem folyoir 65 no. 10: 373-383 O '59.

1. Veggipari Egyetem Fizikai-Kemiai Tanszeke, Veszprem.

NEMETH, Karoly, okleveles vegyeszmernok

Investigating desulphurization possibilities on the basis of the material and sulphur balance of the Dunaujvaros Coal Dressing Plant. Bany lap 97 no.3:190-195 Mr '64.

1. University of Forestry and Timber Industry, Sopron.

NEMETH, KARLOV

Distr: KES4

1
Description of experiment: Welding Magnets and
Electrodes (Urgent) (Ref. No. 2-20-4X-04);
In the investigation of the mechanism of welding
of C-1000-3100, a stationary magnet was used;
but in the transition zone, instead of "magnet" it was found
that the transition zone was the same as in a stationary
one (Ref. 44). On top of the magnet active catalyst
was placed (Ref. 44). Owing to the low initial active catalyst
and the machine velocity was high, in the finished
product there were no pores.

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JAS(VB)

NEMETH, KAROLY

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CIA-RDP86-00513R001136520005-8"

METAL, ".,; WATER, ".

Metal catalytic treatment of organic compounds. I. Reduction of the carbonyl group of cyclic oxane in the fluid system. J. J. M.

AKADÉMIAI KIADÓ, Budapest, Magyar Tudományos Kiadó (publisher), Budapest, Hungary, Vol. 65, no. 1, p. 1-51.

Initially listed in East European Accession Serials, Lc, Vol. 1, no. 2, December 1965.
Incl.

NEMETH, Karoly

Active alumina, active bauxite; perspective possibilities of using
active materials. Musz elet 15 no.23:7 N '60. (EEAI 10:1)
(Alumina) (Bauxite)

NAGYPATAKI, Gyula; NEMETH, Karoly

Possibilities of using activated bauxites in the Hungarian
mineral oil industry. Koh lap 95 no.5:223-227 My '62.

HEMETH, Karoly

Solvent cleaning of the alumina industry evaporators. Koh lap 95
no.9:412-416 S '62.

1. Almasfuzitoi Timfoldgyar.

CSANYI, Laszlo; MUCSI, Laszlo; NEMETH, Karoly

Induced reactions in the field of peroxy compounds. Pt.2. Magy
kem folyoir 69 no.3:107-110 Mr '63.

1. Szegedi Tudomanyegyetem Szervertlen-es Analitikai- Kemial Tanszeke;
Reakciokinetikai Akademiai Kutato Csoport.

NEMETH, Karoly, dr., okleveles vegyeszmernok

Possibilities for reducing the sulfur content of coke coal. Bany
lap 96 no.3:153-156 Mr '63.

1. Nehezipari Muszaki Egyetem Asvanyelokeszitesi Tanszek tudomanyos
kutatoja, Miskolc.

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CIA-RDP86-00513R001136520005-8"

L 37812-66

ACC NR: AP6028490

SOURCE CODE: HU/0018/65/017/006/0601/0607

AUTHOR: Kendrey, Gabor--Kendrei, G.; Nemeth, Klara--Nemet, K.
ORG: I. Institute of Pathological Anatomy and Experimental Cancer Research, Medical University of Budapest (Budapesti Orvostudomanyi Egyetem, I. Korbonctani es Kiserleti Rakkutato Intezet)

TITLE: Histogenesis of thioacetamide-induced liver carcinoma
SOURCE: Kiserleti Orvostudomany, v. 17, no. 6, 1965, 601-607 22

TOPIC TAGS: histology, rat, liver, carcinoma, drug effect

ABSTRACT: The histogenesis of thioacetamide-induced cholangiocellular carcinomas has been studied in white rats. By means of consecutive slaughtering of the animals it has been determined that two phases can be distinguished in thioacetamide carcinogenesis. In the first phase, between 3-11 weeks of the experiment, the transformation of a considerable fraction of the liver cells into bile-duct epithelial cells occurs due to the effect of the hepato-carcinogenic compound. This process is accompanied by the appearance of tubular structures. In the second phase, beginning from the 4th month of the experiment, the epithelium of these tubules becomes atypical and the process leads, in general, through cholangiofibrosis, to the development of cholangiocellular carcinoma. In our opinion, tumors induced with TAA which have the histological appearance of cholangiocellular carcinoma are of a hepatocellular origin, histogenetically.

Orig. art. has: 4 figures. [JPRS: 34,161]

SUB CODE: 06 / SUBM DATE: 04Feb65 / ORIG REF: 004 / OTH REF: 022

Card 1/104P

0917 0252

MOSCOW, I.

Information about assembly of the high-freq encryptor 421 A. p. 16c
RADIOTECHNIKA. Budapest Vol. 5, No. 7/8 July/Aug. 1957

SOURCE: EAST EUROPEAN ACCESSIONS LIST(EEAL) VOL. 5, NO. 6 JUNE 1956

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CIA-RDP86-00513R001136520005-8

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Chickens . . .

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² See also the discussion of the relationship between the two in the section on "Theoretical Implications" above.

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CIA-RDP86-00513R001136520005-8"

S/196/40/002/005/013/017
A051/A127

AUTHORS: Belyayev, B. N.; Van-Yun-Yuy, Sinotova, Ye. N; Nemet, L.; Khalkin, V. A.

TITLE: Separation of astatine from lead, bismuth and thorium, irradiated with protons of 660 MEV energy

PERIODICAL: Radiorkhimiya, v. 2, no. 5, 1960, 603 - 612

TEXT: The purpose of this article was to develop a quantitative method for separating radio-chemically pure astatine from irradiated lead, bismuth and thorium, with fast protons, which would be easily reproduced and would yield about 60% astatine from the irradiated targets with a yield tolerance of $\pm 5\%$. Development of such a method is hampered by the insufficient knowledge of the chemical properties of At. In order to establish the quantitative method for At separation with good reproducibility of the results the authors claim that it is necessary to investigate the behavior of the element at each stage of purification. This was accomplished on radio-chemically pure At, separated out from thorium as an indicator. The behavior of At was checked by the gamma-emission, which, in turn,

Card 1/5

Separation of astatine from lead,

S/186/60/002/CC5/C12/C17
AC51/A127

was recorded by a "C-11 (MS-11) counter. Reference is made to the work of Neuman H.M. (Ref. 14: J. Inorg. Nucl. Chem., 4, 5/4, 249, 1957) where a complete description is given of a method for the extraction of At. The authors obtained an improved method, using diluted HCl solutions (Figure 1). Extraction of At increases in the presence of nitric acid. Small quantities of HF which have been added to the dissolved thorium in nitric acid has no effect at all on the extraction of At. The most convenient method for extracting At from an alkaline solution of sodium stannite after re-extraction is said to be the co-precipitation of the element with metallic tellurium from an acidified solution of stannite with HCl. Kurchatov, P. V., Yekhedov V. N. et al. (Ref. 1: ZhETF, 35, 1 (?), 1059) give a complete description of the method. Co-precipitation of At from HCl solutions with tellurium helps not only to concentrate the At and eliminate the large quantities of salts present in the solution, but also to conduct an effective purification from Sb, Os, Tl and J. Experiments showed that the presence of small quantities of tellurium in the H₂SO₄ solution (-10 mg) considerably spoiled the conditions of distillation of At. The recommended method developed by the authors is described as follows: Based on data of the behavior of At at each stage of purification it was suggested to dissolve 1 gr. of metallic bismuth irradiated

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S/18F/60/002/C05/013/017
A051/A127

Separation of astatine from lead,

with 60 Mev energy protons on the internal beam of the synchrocyclotron, in 5 ml of concentrated nitric acid, while heating it in a flask with a reversible cooler; 40 ml of 0.1 M HCl, saturated with chlorine, were added to the nitric acid solution. The extraction was carried out with 40 ml of diisopropyl ether in an extractor equipped with a mechanical mixer. The organic layer was twice washed with 15 ml of 0.1 M HCl. The At was extracted from the ether with 40 ml of 0.1 M solution of sodium stannite in 2 M NaOH. 10 - 15 mg of sodium tellurite 2 - 3 mg of lanthane (LaCl_3) and 1 - 2 mg of sodium chloroaurate were added to the alkaline solution. The solution was separated from the residue by filtration through a glass filter No. 4. The precipitation of the tellurium with the sodium stannite was repeated twice. The alkaline filter was acidified with 20 ml of concentrated HCl, containing about 0.2 mg of Te to 1 ml. The precipitation of the Te from the acidic solution was carried out with intensive mixing. After coagulation of the residue, 5 mg of Te was added twice. The Te residue, containing At, was separated from the solution by centrifuging, washed with a 4Y HCl and dissolved in a few drops of nitric acid. 20 ml of 4 Y HCl were added to the obtained solution, and the Te was precipitated with stannous chloride. After coagulation of the precipitate, the precipitation of the Te was repeated (5 mg). The formed residue

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S/186/60/002/005/013/017
A151/A127

Separation of astatine from lead,

was centrifuged, washed with concentrated HCl and dissolved in 5 ml of 9 N HCl while passing through a gaseous chlorine. The At was separated from the Te by extracting it in to diisopropyl ether. The ether layer (about 6 ml) was washed twice with 1.5 - 2 ml of 9 N HCl and the At was re-extracted with water (twice with 5 ml each time). After extraction a solution was obtained of radio-chemically pure At, about 0.01 M according to Cl, containing traces of the diluent. When extracting At formed from lead, the method is more complicated, necessitating first the elimination of lead chloride, which precipitates when HCl is added to the nitric acid. The gamma-spectra of At were studied on a scintillation spectrometer. Findings agree well with data of Strominger S., Hollander, J. V., Seaborg G. T. (Ref. 14: Rev. Modern Phys. 30, 2, 799, 1958.) on gamma-emission of At²⁰⁸, At²⁰⁹ and At²¹⁰. When measuring the At preparations formed from the lead, in addition to the known gamma-lines, 3 lines were found (660 kev with $T = 5$ hours, 165 kev and 32 kev) which, according to literature data, cannot be attributed to isotopes of At. The total intensity of these lines is about 10% of the intensity of the entire specimen. The determination of the half-lives of the various isotopes of At was carried out with sufficient accuracy.

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S/1PK/KC/CC2/CCS/C12/C12
AC51/A127

Separation of astatine from lead,

sufficient accuracy only for samples formed from thorium. It was impossible to produce radio-chemically pure At from lead. In checking the reproducibility of results of the given method it was noted that comparatively large amounts of At loss (up to 50%) was connected mostly with the incomplete extraction of the At in the various stages of purification. However, it is pointed out that these losses can be avoided by acidifying the alkaline solution of the stannite, containing At with HCl, to which small quantities of Te have been added. Here it is assumed that owing to the competition of adsorption of At on Te, the adsorption of the element by the walls of the glass vessel is excluded. The favourable reproduction of results of the yields makes this suggested method applicable for the determination of absolute cross-sections of At formation in various nuclear reactions. There are 4 figures, 3 tables and 16 references: 5 Soviet-bloc, 11 non-Soviet-bloc. The four recent English language publications read as follows: V. Lefort, G. Simonoff, X. Farrago, C. r., 249, 219, 1959; F. K. Hyde, J. Chem. Educ., 36, 1, 15, 1959; H. M. Neuman, J. Inorg. Nucl. Chem., 4, 5/6, 349, 1957; D. Strominger, J. M. Hollander, G. T. Seaborg, Rev. Modern Phys., 30, 2, 709, 1958.

Card 5/5

EXCERPTA MEDICA Sec 12 Vol 13/7 Ophthalmology July 59

1110. SOME DATA ON THE SURGICAL TREATMENT OF THE PARALYTIC
ECTROPION - Adatok a bénulásos szemhéjkifordulás műtéthéz - Német
L. - SZEMESZET 1958, 95/1 (8-11) Illus. 5

A modified Imre's operation for chronic paralytic ectropion. Incision as in Imre's
be exposed. A muscle strip 3-4 mm. broad is isolated and folded with Mueller's
suture and fixed to the internal canthus ligament and the skin strip also. Knotting
over beads. By this operative method excellent cosmetic results have been obtain-
ed.

Orbán - Budapest (XII, 19*)

TOTORCEA, C., ing.; BABALAU, D., ing.; NEMETH, L., ing.

Achievement of ventilation in the digging of a blind drift of
great metric length. Rev min 14 no.7:308-316 Jl '63.

NEMETH, L.; DUBRUSSY, L.; GAI, F.; NEMETH, L., Jr.

Effect of vinblastine-sulphate (VR-8, on Vx-2 rabbit carcinoma.
Neoplasma (Bratisl.) 19 no.4:357-363 1965.

1. Research Institute of Neopathology, Budapest, Hungary.

CZECHOSLOVAKIA/Chemical Technology. Chemical Products and
Their Application. Medicinals. Vitamins. Antibio-
tics.

H-17

Abs Jour: Ref Zhur-Khim., No 13, 1958, 44311.

Author : Nemet Ladislav.

Inst :

Title : Use of Fluorometry in the Control of Medicinal
Agents.

Orig Put: Farmacia, 1955, 24, No 1, 15-19.

Abstract: Brief consideration of the theory of fluorescence,
design and operation of photoelectric fluorometer
(wherein the difference in glow, between the speci-
men under study and the standard, induces an elec-
tric current in the photocell, which is recorded
by a galvanometer), and of the use of fluorometry

Card : 1/2

45

MANSHILIN, V.V.; AGAFONOV, A.V.; MANAKOV, N.Kh.; VASILENKO, V.P.;
MASLOV, I.Ya.; KNYAZEV, V.S.; STEPANENKO, I.A.; Prinimali
uchastiye: VAYL', Yu.K.; NEMETS, L.L.; BELOUSOVA, I.V.;
STOLYARENKO, Ye.G.; YEMEL'YANOV, A.A.; RYABOV, V.M.;
BEREZOVSKIY, V.D.; ZEFIROVA, Ye.G.; CHELOGUZOVA, Ye.F.;
SOLOTSINSKIY, S.Ye.; BOL'SHAKOVA, Y.A.; KHRAMOV, A.Ye.

Catalytic cracking of raw heavy distillates on a microspheric
catalyst of Troshkovskiy clay. Khim. i tekhn. topl. i masel. 8
no.3:1-6 Mr '63. (MIRA 16:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke
nefti i gazov i polucheniyu iskusstvennogo zhidkogo topliva.
(Cracking process) (Catalysts)

GREKOVA, A.M.; NEMETS, L.L.; MANSILIN, V.V.; MANAKOV, N. Kh.

Using a hydrocyuron as a thickener for suspensions of very
low concentrations. Khim i tekh. topl. i masel 7 no.10:46-51
(MIRA 1787)
042

NEMETH, Lajos, dr.

Western Europe as seen by an animal husbandman. Elet tud 17 no.
15:471-474 Ap. '62.

1. Földművelésügyi Miniszterium Allattenyésztesi és Allategészségügyi
Főigazgatóságának vezetője.

RICHTER, Richard, dr., okl. banyamernok, a muszaki tudomanyok kandidatusa;
NEMETH, Lajos, okl. banyamernok, tudomanyos kutato

Contribution to the question of safety pillars. (To be contd.) Bony
lap 94 no.4:217-228 Ap '61.

1. Nehezipari Muszaki Egyetem, Banyamernoki Kar, Miskolc.

(Mining engineering—Safety measures)

S/196/63/000/002/015/026
E194/E155

AUTHORS: Huber, Gyula, and Nemeth, Lajos

TITLE: A multi-core cable of high strength with plastic
sheathing

PERIODICAL: Referativnyy zhurnal, Elektrotehnika i energetika,
no.2, 1963, 30, abstract 2 B 150. (Hung. pat.
cl. 21 c, 20-27, no. 148969, February 28, 1962)

TEXT: (No text given)

Card 1/1

NEMETH, Lajos, dr.

Cooperation of intertrade committees with local councils. Munka
13 no.7:16 Jl '63.

1. Szakszervezetek Csongrad megyei Tanacsának titkara.

NEMETH, Lajos, dr.

Placement and protection of geodetic signs. Geod.kart 15 n.6:
429-435 '63.

NEMETH' Lajos, okleveles banyamernok, egyetemi adjunktus

Designing of safety pillars. Bany lap 97 no.1:22-26 Ja'64.

1. Nehezipari Muszaki Egyesem Banyamuvelestani Tanszek,
Miskolc.

11 G

Hormonal relation to ocular hyperesthesia. L Németh
Szemészeti (Budapest) 60, 104-7 (1951) (in Hungarian).
Am J Ophthalmol 35, 883 (1952). — The role of hormones in
allergic diseases of the eye is discussed. Allergic eye symp-
toms are caused by disorders of endocrine equilibrium rather than
by increased or decreased hormone excretion. W. C. T.

NEMETH, Lajos.

Review of the literature on allergy in eye diseases.
Szemeszet 91 no.4:169-173 Nov 54.

1. A budapesti Orvostudomanyi Egyetem II. sz. Szemklinikajának
(igazgató: dr. Nonay Tibor egyet. tanár, orvostudományok
kandidátusa) kozleménye.

(ALLERGY, manifestations,
eye, review)

(EYE, diseases,
allergic dis., review)

NEMETH, Lajos, dr.; OROSZ, Eva, dr.

Postoperative follow-up in injuries of the frontal lobe. Ideg.
szemle 9 no.4:123-126 Aug 56.

1. Az Orszagos Idegsebészeti Tudományos Intézet (Igasgató:
Zoltan, László, dr.) kösléménye.

(FRONTAL LOBE, wounds & inj.
surg., postop. follow-up (Hun))

TEVETH LAJOS

The histamine conjunctive test in focal eye diseases. Szemészeti 94
no.1:17-22 May 57.

1. MAV korhaz (Irázásáho: On Lajos) szemorvosztalyának (főorvosa: Nemeth
Lajos) kozleménye.

(EYE DISEASES, diag.

focal infect., Remky-Rohrschneider reaction (Hun))
(FOCAL INFECTION, diag.

Remky-Rohrschneider reaction in focal eye infect. (Hun))

KEPES, Janos, Dr.; NEMETH, Lajos, Dr.; BAUER, Henrietta, Dr.

Solitary plasmacytomas in neurosurgery. Ideg. szemle 11 no.1-2:54-58
Feb-Apr. 58.

1. Az Orszagos Idegsebészeti Tudományos Intézet (Igazgató: dr. Zoltan
László) közleménye.
(MYELOMA, PLASMA CELL, surg.
case reports on solitary plasma cell myelomas (Hun))

NEMETH, Lajos

Data on the surgical treatment of paralytic ectropion. Szemeszet 95
no.1:8-11 Mar 58.

1. A MAV korhaz (igazgato: Oo Lajos), szemostalyanak (Foovvos: Nemeth
Lajos) kozlemenye.
(ECTROPION, surg.
technic (Hun))

NEMETH, Lajos

Aging of the eye. Szemeszet 96 no.3:120-124 S '59.

1. A MAV Korhaz (Igazgato: Oo Lajos) Szemeszeti Osztalyanak
(Főorvos: Nemeth Lajos) kozlemenye.
(EYE physiol)
(AGING eff)

NEMETH, Lajos

Phaco-toxic and phaco-allergic glaucoma. Szemészeti 98 no.4:214-219
D '61.

1. A MAV korhaz (Igazgató: Oo Lajos dr.) Szemészeti Osztályának
(Főorvos: Nemeth Lajos) kozlemenye.

(GLAUCOMA etiol)

METH, Lajos, dr.

In eye injuries and safety goggles. Vasut 12 no.12:24-25 D '6..

1. MAV Korhaz szemesz-foorvosa.

NEMETH, Lajos

Correction of eyelid defects by isotopic autoplastic surgery.
Szemeszet 99 no.4:229-237 D '62.

1. A MAV korhaz (Igazgatc: Oo Lajos) Szemeszeti Osztalyanak (Foorvos:
Nemeth Lajos) kozlemenye.
(EYELIDS) (SKIN TRANSPLANTATION)

Quality Problems in the Production of Forgings. L. Kereczi. (Magyarországi Kézikönyvtár, 1950, vol. 8, App. 2, pp. 478-480). [In Hungarian]. The author discusses the technical problems relating to the production of forgings with particular reference to conditions in Hungary where there are produced in pieces up to 25 tons. Defects due to surface cracks amount to 20-40% of the total rejects. The manufacture of turbine rotors, steel tyres, and bicycle forgings is discussed.—B. S. e.

N-10

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YEMETH, L.

W.L. ✓ The Application of Melting Shop Refractories in the Direct Open-Hearth Steelworks, L. Nenoh, (Holden's Japan, 1951, 7, Mar., 66-71). [In Hungarian]. Conditions between molten steel and bags with refractories were studied, and the behaviour of all manite spouts was examined.—R. A. R.

KALMÁR, L.

MÖLLEM, I. Increasing the surface coverage of polypropylene by grafting
acetone. II. p. 4^d.

Vol. 2, No. 1, Feb. 1961.
JELLINEK MÉTÉLAZÁSI KÖNYV.
TÖKE TÍGGY
Budapest, Hungary.

See best surge scan Accession, Vol. 1, No. 1, 03 1961

1000, I.

I. M., I. unmeasurable surface of dress of cylinder, 1000 meters. III. I. I.

Vol. 1, No. 1, Mar. 1951.
The New York Times Co., Inc.
1000
1000

Soc. West European Access, Vol. 1, No. 1, Mar. 1951.

PELI, Janos; NEMETH, Lajos

Application of induction hardening in gear manufacture, II. Gep 13
no.12:460-464 D '61.

1. Csepeli Szerszamgyar(for Peli). 2. Jarmuflesztesi Intezet
(for Nemeth).

NEMETH, Lajos; PROKAY, Pal

Experiments in producing crankshafts of spheroidal graphite
cast iron. Koh lap 95 no.5: ~~suppl. 13~~ no.5: 104-109
~~My~~ '62.

1. Jarmafejlesztesi Intezet.

NEMETH, Lajos, gepeszmernok

Some newer aspects of manufacturing and using the Duszil-
piston alloy. Koh lap 96 no.1:Suppl.:Ontode 14 no.1:1-7
Ja '63.

1. Jarmufejlesztesi Intezet.

NEMETH, Lajos, okleveles gépeszmmernok

Crack prevention on the surface of cast-iron brake drums.
Moh lap Suppl.: Ontode 14 no. 7:145-149 Jú '63.

1. Járufüjlesztési Intézet.

POGATSA, Gabor, dr. Technikai munkatársak: NEMETH, Lajos; SAGY,
Józsefné.

Effect of chlorpropamide on urea synthesis by the liver and
gluconeogenesis. Orv. hetil. 105 no. 26:1217-1218 28 Je'64

1. Budapesti Orvostudományi Egyetem, II. Belklinika.

Németi, László

411-198

Németi, László. Méhészet és a meteorológia. [Agriculture and meteorology.] Időjárdi, 56(96)1185-187. May/June 1952. DWB—Ambulant apiculture is practiced in Hungary by about 3,000 beekeepers with some 30,000 hives. After the blooming season, the bees are transferred from one locality to another where melliferous flowers can still be found. Unexpected frost or other unfavorable meteorological conditions prevailing in the areas reached at great expense frequently frustrate the hopes of apiculturists. The author therefore suggests the establishment of temporary observation stations in the appropriate regions and the organization of a meteorological service whose sole concern it would be to satisfy demands of apiculture by special press and radio reports. *Subject Headings:* 1. Apiculture 2. Agricultural meteorology 3. Hungary—G.T.

551.586.63

Geophys

NEMETH, Laszlo

State forest farms in Southern Zala County. Erdo 12 no.8:347-
351 Ag '63.

1. Delzalai Allami Erdogazdasag igazgatoja, Nagykanicza.

NEMETH, Laszlo

Questions of transporting, measuring and utilizing natural gas
from Southern Zala County from the point of view of the glass
industry. Epitoanyag 15 no.6:224-227 Je '63.

NEMETH, Laszlo

HUNGARY / Chemical Technology, Chemical Products and
Their Application, Part 3.- Food Industry.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 62770.

Author : Tibor Perlusz, Laszlo Nemeth.

Inst : Not given.

Title : Application of Paper Chromotography to Deter-
mination of Tobacco Alkaloids.

Orig Pub: Elelm. ipar, 1957, 11, 9 - 10, 220 - 224.

Abstract: The water extract obtained by a partly modified Belyayev method (Ob. rabot po khimii tabaka, 1948, IX, 173) is chromatographed on paper with phosphate buffer using n-butanol as the solvent and aniline and BrCN vapors as developers. Individual alkaloids are identified at the qualitative analysis by R_f and by color and fluorescence in ultraviolet light. For the quantitative determination, a corresponding part of

Card 1/3

HIGHLIGHT / Chemical Technology, Chemical Products and
Their Application, Part 3. - Food Industry.

Abs Jour: Ref Zhur-Khimiya, No 16, 1963, 6277 .

Abstract: the paper is treated with water and photometry
is carried out after the addition of phosphate buffer (containing 1% of aniline) and
BrCN solution. Empirical equation for computing
the nicotine, anabasine and nornicotine,
percentage basei on the determined extinction
are presented. The main advantage of the method
is that the magnitude of R_f can be changed by
a corresponding selection of pH of the buffer
solution thus, that alkaloids present in great
amounts should not disguise the presence of
others. For example, minute amounts of nicotine
with $R_f = 0.86$ are clearly revealed at
the determination of nicotine with buffer pH
 $= 5$ ($R_f = 0.32$); pH = 8 facilitates the de-

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HUNGARY / Chemical Technology, Chemical Products and
Their Application, Part 3. - Food Industry.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 62770.

Abstract: termination of nicotinic acid $R_f = 0.23$;
in the presence of a great amount of nor-
nicotine. ($R_f = 0.59$). Bibliography with
28 titles.

Card 3/3

HEJJ, Attila; HALZL, Jozsef; TORMA, Miklos; NEMETH, Laszlo;
OCSAI, Mihaly

Establishment of nuclear reactors on industrial scales;
fields of application. Energia es atom 14 no.4/5:209-214
My '61.

1. Eromuveket Tervezo Iroda (for Hejj, Nemeth, and Ocsai).
2. HOTERV (for Halzl and Torma).

NEMETH, Laszlo

SUMMARY

Budapest, Hidrologiai Kozlony, No 5, Oct 62, pp 428-433.

"Radiohydrogeological Investigations in the Velence Mountains."

NEMETH, Laszlo

Electronic computers in teaching. Term tud kozl 7 no.2;60-62 F '63.

1. Kozponti Fizikai Kutato Intezet tudomanyos munkatarsa, Budapest.

PERLUSZ, Tibor; NEMETH, Laszlo

Paper chromatographic analysis of tobacco alkaloids.
Elelm ipar 11 no.9/10:220-224 N '57.

NEMETH, Lasalo

Radiohydrogeological investigations in the Velence Mountains.
Hidrologiai koslony 42 no.5:428-433 O '62.

NEMETH, Laszlo, okleveles banyamernok

Increasing mining velocity in the Tatabanya coal basin.
Bany lap 96 no.11:846-851 N '63.

1. Tatabanyai Szanbanyaszati Troszt, Tatabanya.

"APPROVED FOR RELEASE: 03/14/2001

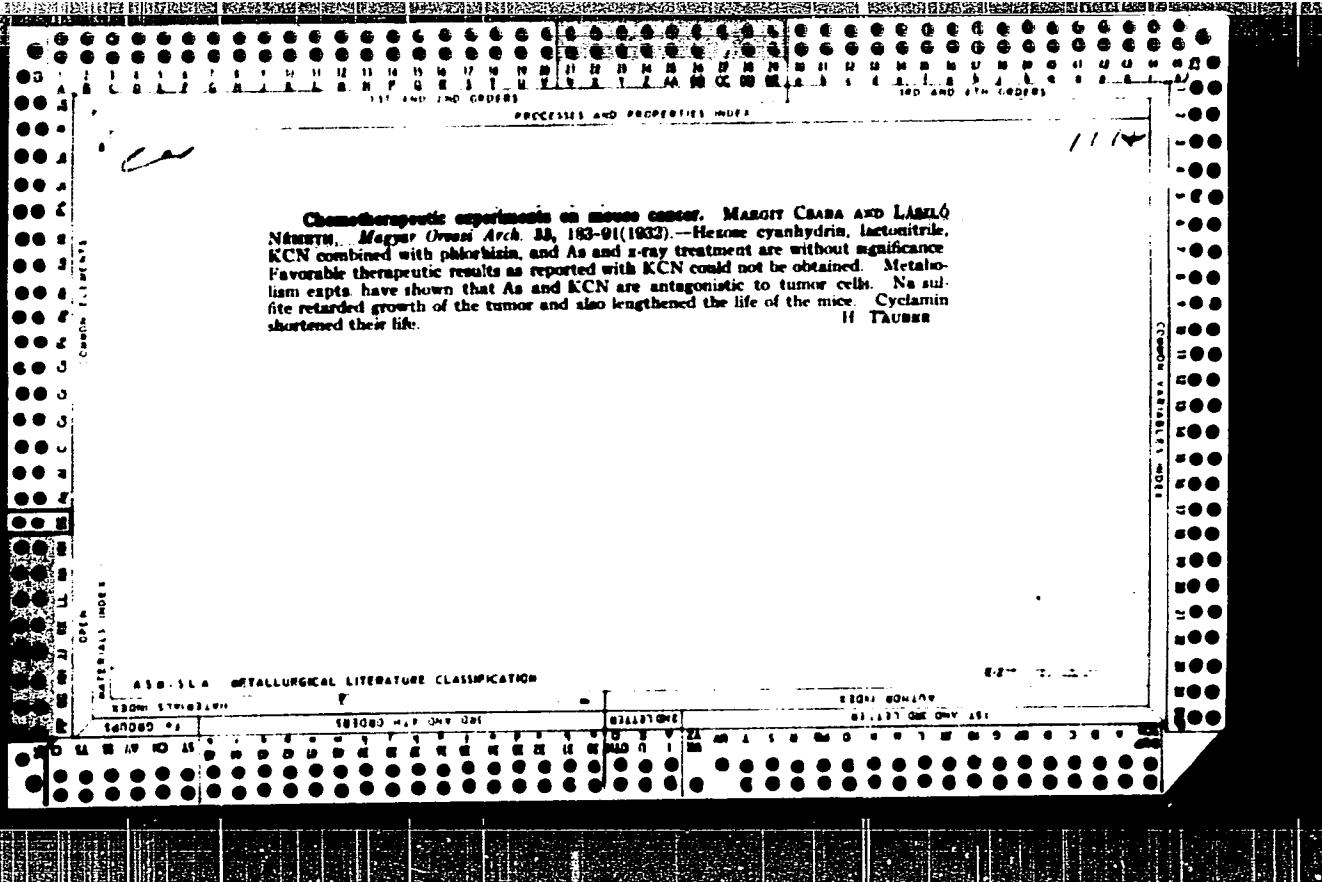
CIA-RDP86-00513R001136520005-8

AMERICAN, 1962/3

Letter to a 4th year student . RV. het. I. 16c no.34-245-6. ,
26.2.1965.

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001136520005-8"



Experiments on mouse cancer treated with potassium cyanide. JASZLO NEMETH AND MARGIT CSABA. Magyar Orvosi Arch. 33, 192-4 (1932). Tumors become hyporealignant with KCN and inoculated to mice treated previously with KCN preserve their hyporealignant character. The healing tendency is not increased. H. TAUBER

ASME SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 03/14/2001

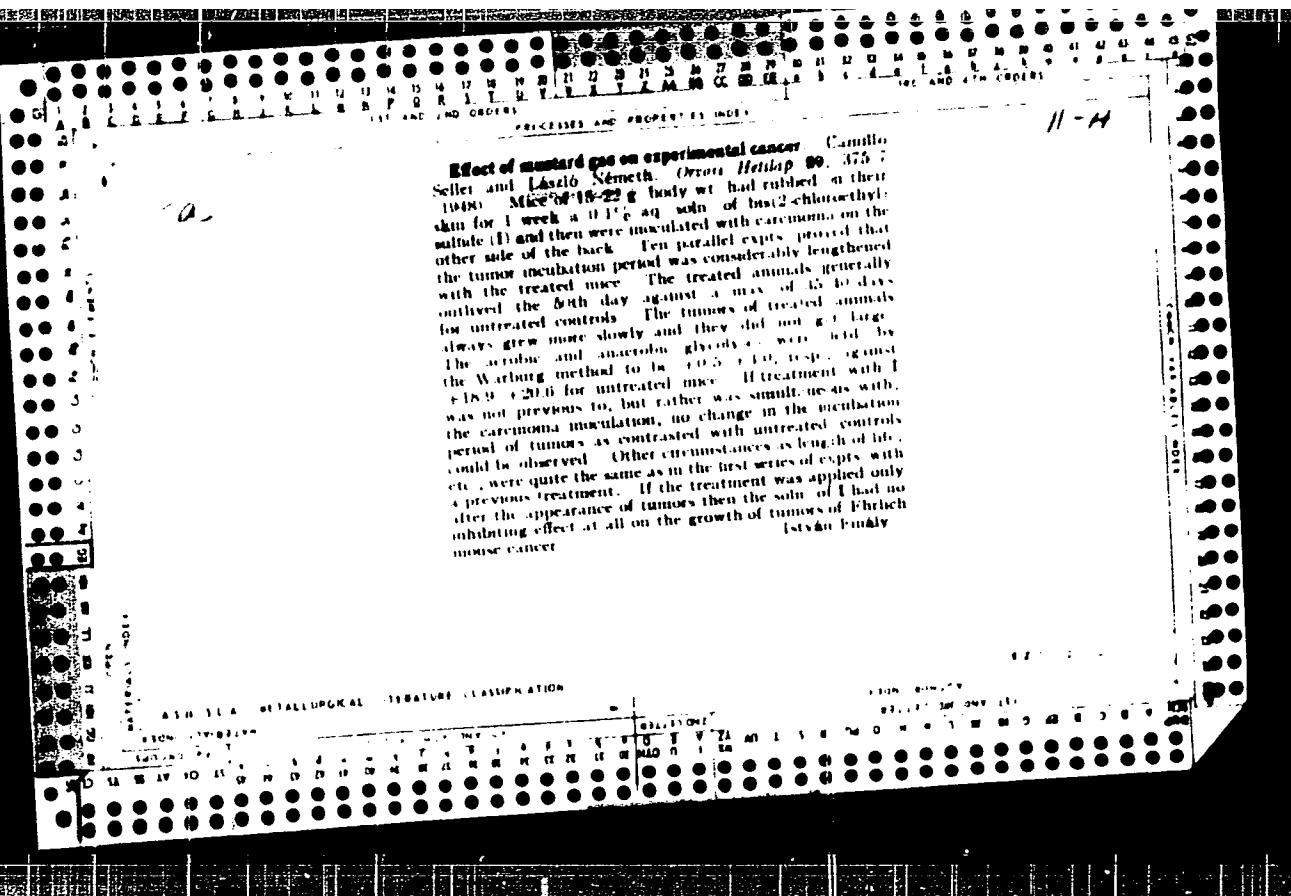
CIA-RDP86-00513R001136520005-8"

KÜLTÜR, İ. İ.

Lewisite, the University of Ankara, Department of Surgery, 1951-1952.
Report on the experimental tumor-sarcoma. Influence of Lewisite
(methyl allyl sulphide) on the development of tumor-sarcoma in mice.
(1951-1952)

Mustard gas (lewisite) treatment diminished the experimental tumor-sarcoma.
Pure lewisite did not affect the developed tumors. When mice were painted
daily with a one per cent solution of lewisite, and then treated with mustard
and rocuronium, the tumors were gradually removed, and the mice died.
Deaths in aplasia were reduced. Such a fact cannot be placed and the death
with lewisite was concurrent with or preceded by radiation of the tumor. Death
with lewisite was concurrent with pure lewisite or mustard available.
(1951-1952) (See. 1)

Sc: Encyclopaedia, Vol. II, No. 3, Sect. I, March 1952



NFTET, L. 1949

(11 s, Pelklinikaiak Karlemeze, Budapest I.)

"Influence of Mustard Gas on Experimental Cancer"

Orvosi Hetilap, Budapest 1949, 39/24(375-377)
Avt: Err. 'ed. V. Vol. 11, No. 3, p. 185

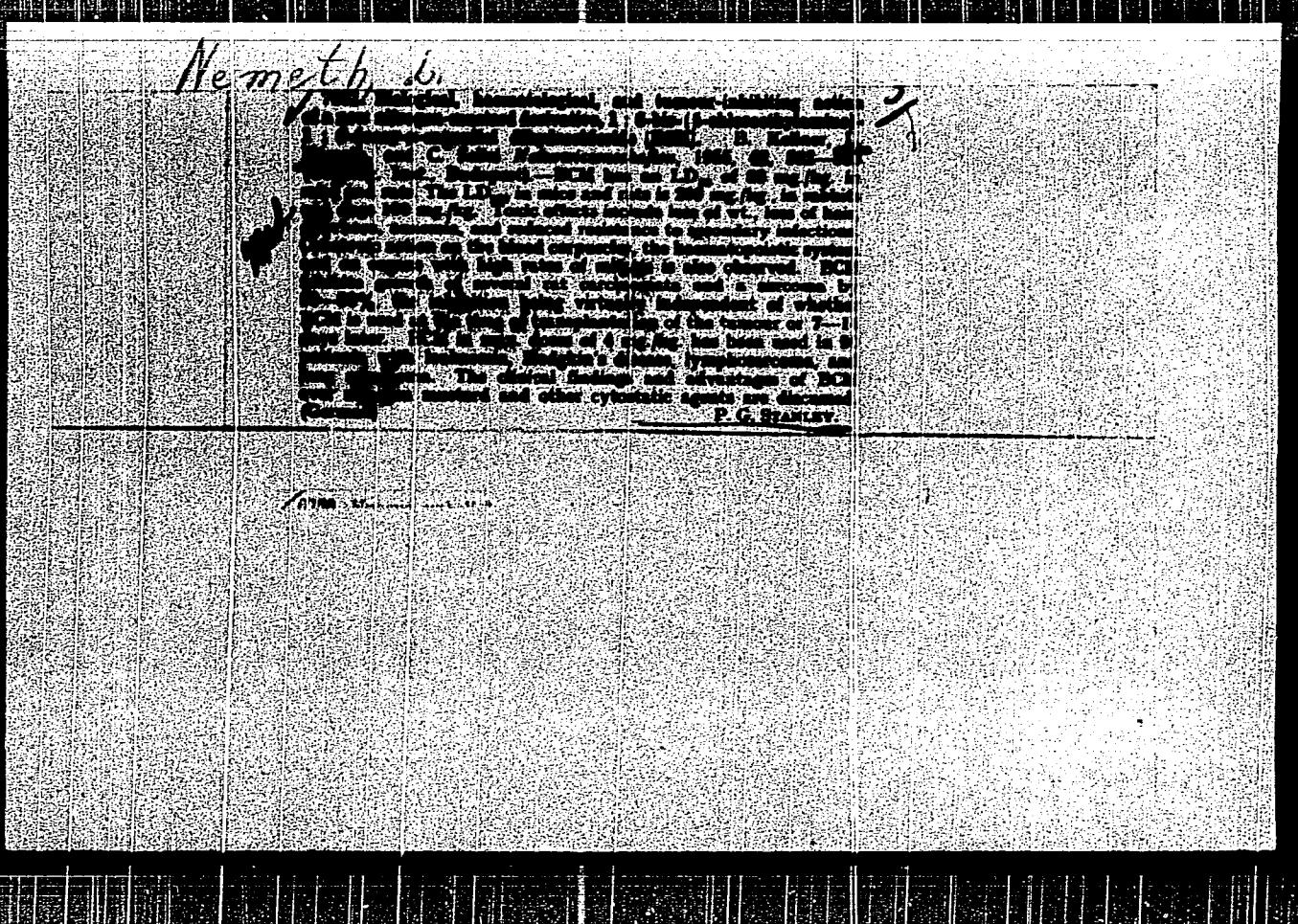
MASSZI, F.:NEMETH, L.:SELLEI, C.:TILL, G.

Experiments with various mitosis and ferment inhibitory substances
on Paramecia and on animal tumors. Kiserletes orvostud 4 no. 4:
248-255 Aug 1952.
(CLML 23:5)

1. Doctor for Nemeth and Sellei. 2. Second Internal Clinic, Budapest
Medical University.

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001136520005-8



APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001136520005-8"

4921. Action of T-6: bis-6-chlorophenylaminomannite dichlorhydrate [BCM] on transplanted malignant animal tumours. K. Lapis and L. Németh. *Klin. Woch.*, 1953, 64, 884-887 (Path. Alt. des Staatsfutter. Ortslagergesetz, Budapest, Hungary).—The action of BCM & cortisone, and of both drugs has been tested against subcut. and i.v. Guerin rat carcinoma and i.v. inoculated llow carcinoma. BCM hinders the formation of metastases in Guerin tumour and also protects against the metastatic action of cortisone, and against i.v. Guerin tumour the generalized spread following i.v. administration of a second tumour, but, in the doses used, does not control metastasis formation. The BCM was given i.v. in 15 mg./kg./day. (German) G. C. CLARKE

2

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001136520005-8"

NEMETH, Laszlo

Anticlinal crack waters on the Mecsek verge. Micrological zonation
44 no.8:356-365 A '64.

1. Mecsek Ore Mining Enterprise, Pecs.

KELLNER, Bela, dr.; NEMETH, Laszlo, dr.

Studies on the inhibiting effect of a new nitrogen mustard derivative, 1,6-bis-(β -chloroethylamino)-1,6-desoxy-D-mannitol dihydrochloride (BCM), on tumor growth. Orv. hetil. 97 no.36: 981-984 2 Sept 56.

1. Az Orszagos Onkologial Intezet onko-pathologial osztalyanak (vezeto: Kellner, Bel, dr. egyet. tanar) kozlemenye.
(NITROGEN MUSTARDS, eff.

1,6-bis(B-chloroethylamino)-1,6-desoxy-D-mannitol,
cytotoxic eff. in exper. animals (Hun))
(MANNITOL, related cpds.
same)

SELLEI, Kamilo; NEMETH, Laszlo; ECKHARDT, Sandor; KELLNER, Bela

Clinical and experimental results with BCM (8-bis-1,6-chloroethylamino-D-mannitol dihydrochloride). Magy. Tudom. Akad. Biol. Orv. Oszt. Kosl. 8 no.1-2:119-121 1957.

1. Orszagos Onkologial Intezet, Budapest.
(NITROGEN MUSTARDS)

1,6-bis-(B-chloroethylamino)-1,6-desoxy-D-mannitol,
pharmacol. (Hum)
(MANNITOL, related cpds.
same)

EXCERPTA MEDICA Sec 5 Vol.11/9 Pathology Sep 58

NEMETH L.

2218. CHEMOTHERAPEUTIC EXPERIMENTS WITH ORGANIC FLUOR COMPOUNDS IN ANIMAL CANCER - Chemotherapeutische Versuche mit organischen Fluorverbindungen an Tierekrebsen - Németh L., Oláh G., Sellei C., Gáti E. and Kellner B. Ung. Onkol. Inst. Pathol. Abt., Budapest - ARCH. GESCHWULSTFORSCH. 1957, 11/2 (101-111) Tables 6

The tumour-inhibiting effect of 25 organic fluor compounds was tested in 4 different tumour strains, and especially the effect of fluor urethan was carefully examined. The tumour strains were mouse ascites tumour and Crocker sarcoma, and rat M-1 sarcoma and Guérin carcinoma. No compound showed significant tumour-inhibiting action. Histological examination showed no changes usual with other mitotic toxins.

Juhász - Budapest (V, 2, 16)

Recd. 7.2.6
EXCERPTA MEDICA Sec.2 Vol.11/4 Phycie-biochem-pharm Apr58

1837. CHEMOTHERAPEUTIC EXPERIMENTS WITH ORGANIC FLUORINE COMPOUNDS IN ANIMAL CANCER - Chemotherapeutische Versuche mit organischen Fluorverbindungen an Tierkrebsen - Németh L., Oláh G., Sellei C., Gáti E. and Kellner B. Ung. Onkol. Inst., Pathol. Abt., Budapest - ARCH. GESCHWULSTFORSCH. 1957, 11/3 (101-111)
Tables 6

The tumour-inhibiting effects of 25 organic fluorine compounds were tested in 4 different tumour strains, and especially the effect of fluorourethan was carefully examined. The tumour strains were mouse ascites tumour and Crocker sarcoma, and rat M-1 sarcoma and Guérin carcinoma. No compound showed significant tumour-inhibiting action. Histological examination showed none of the changes usual with other mitotic poisons.

Juhász - Budapest (V. 2, 16)

NÉMET

EXCERPTA MEDICA SEC 5 Vol 12/6 Gen. Path. June 59

III. COMPARATIVE INVESTIGATIONS OF SOME NEW ALKYLATING SUBSTANCES IN ANIMAL TUMOURS - Vergleichende Untersuchungen mit neueren alkylierenden Substanzen an Tierkrebsen - Németh J., and László K., Pathol. Abt., Staatl. Onkol. Inst., Budapest - ARZNEIMITTEL-FORSCH. 1958 8/6 (340-344) Graphs 1 Tables 9

The authors have investigated the effects of HN₂, BCM, N-oxide-lact (mitomycin), phenylalanine-lact (sarcolysin), ethylenimino-hinon, TEM, 1-dimethane-sulphon-oxybutane (myleran), podophyllin, desacetyl-methyl-colchicine (colcemid) and mercaptopurine on the following tumours: Yoshida, Walker, Guérin, Crocker, M1-sarcoma (induced), S45-sarcoma (induced), C3H spontaneous breast tumour, Ehrlich ascites, Ehrlich-solid, Brown-Pearce and AKR-leukaemia. It was found that BCM (=6-bis-(β-chlorethylamino)-1,6-deoxy-D-mannite-dichlorhydiate) is 50 times less toxic than N-mustard. The tumour-spectrum of the β-chlorethylamino-derivatives (BCM, N-oxide mustard and phenylalanine mustard) is considerably more extended than that of N-mustard. Most effective on the whole tumour-spectrum was BCM. In histological examinations of blood slides, bone marrow and the lymphatic system, the most marked effect of BCM was found in the lymphatic system. Principally, the site of action of the 2 other compounds is also the lymphatic system. These findings indicate strongly that the oncolytic effect is caused directly or indirectly by activation of the lymphatic system.

Ullman - Toronto (V. 2. 16)

EXCERPTA MEDICA Sec 14 Vol 14/6 Radiology June 60

1473. THE EFFECT OF X-RAY AND CHEMOTHERAPY ON THE FORMATION OF METASTASES IN GUERIN RAT CARCINOMA - Die Beeinflussung der Metastasenbildung von Guérin-Rattenkarzinom durch Strahlen- und Chemotherapie - Németh L., Lapis K., and Bihari E. Pathol Abt, Staatl. Onkol. Inst., Budapest - STRAHLENTHERAPIE 1959, 108-2 (317-323) Tables 2 Illus. 1

Rats of the Debrecen stock were used. The i.v. administration of a suspension of Guérin carcinoma cells caused metastasis and generalization of the carcinoma to many organs in all rats. Cortisone, 2 mg. daily, markedly increased the formation of metastases. Total-body irradiation before carcinoma-cell administration, with doses ranging from 50 to 600 r., increased the number of metastases. Irradiation with high doses (8×300 r.) after tumour-cell administration reduced the total mass of metastases, but increased their number. Irradiation with lower doses (5×50 r.) decreased the number of metastases and in some rats led to total recovery. A much better effect than with X-ray therapy was established in rats treated with the chemotherapeutic agent 'Degranol' (BCM. D-1:6-bis(2-chloroethylamino)-1:6-deoxymannitol). In a high proportion of cases, total recovery was achieved.

Skalka - Brno (XIV, 5, 16)

NEMETH, L.; KELLNER, B.

A new mouse ascites tumour to be used as a screening tool. Neoplasma
8 no.4:337-343 '61.

1. Research Institute of Oncopathology, Budapest, Hungary.
(ANTINEOPLASTIC AGENTS pharmacol.)
(LEUKEMIA LYMPHOCYTIC experimental)

NEMETH, L.

Chemotherapeutic experiments with the Shay leukemia. Neoplasma 19
no.1:31-34 '63.

1. Department of Chemotherapy, Research Institute of Oncopathology,
Budapest, Hungary.

(LEUKEMIA, EXPERIMENTAL) (MANNOMUSTINE)
(CYCLOPHOSPHAMIDE) (THIO-TEPA) (CHLORAMBUCIL)
(MELPHALAN) (ANTINEOPLASTIC AGENTS) (COLCHICINE)
(VINBLASTINE) (LEUKEMIA, MYELOCYTIC) (BIOLOGICAL ASSAY)

NEMETH, L.; KELLNER, B.

On biological properties of Vinca rosea alkaloids. Neoplasma 10
no.2:149-152 '63.

1. Research Institute of Oncopathology, Budapest, Hungary.

NEMETH, L.; GAL, F.

Growth of three mouse ascites tumours in nine different strains.
Neoplasma (Bratisl.) 11 no.3:241-243 '64

1. Research Institute of Oncopathology, Budapest, Hungary.

HUNGARY

KELLNER, Bela, Dr. NEMETH, Laszlo, Dr. HORVATH, Piroska, INSTITORIS, Laszlo,
Dr; Oncopathological Research Institute (Onkopatologial Kutato Intezet),
and Chinoin Pharmaceutical and Chemical Product Factory (Chinoin Gyogyszer
es Vegyeszeti Termeket Gyara), Budapest.

"A New Antitumor Compound, 1,6-Dibromo-1,6-Dideoxy-Dulcide (Preliminary
Communication)."

Budapest, Orvosi Hetilap, Vol 107, No 16, 17 Apr 66, pages 737-738.

Abstract: The preparation and pharmacological data on the drug is followed by a description of its inhibitory effect on sensitive tumors. Its effect on the leukocyte count in the peripheral blood as well as in the spleen, lymph nodes and duodenum is discussed. Its inhibitory effect on tumor growth is summarized in a table. The biological and tumor-inhibitory effect of DBD is different in many respects from that of other compounds. The cytological effect appears very rapidly and persists for a very long time, especially in the tumor. The introduction of long periods of rest between treatments seems to be promising. The therapeutic range of DBD is very broad. The effect persists much longer on the myeloid elements than on the lymphatic organs and the duodenum. Peroral administration

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HUNGARY

Budapest, Orvosi Hetilap, Vol 107, No 16, 17 Apr 66, pages 737-738.

is equally or even more effective than the i.v. treatment. With the exception of a decreased leukocyte count, only relatively mild and transient organic changes are produced by the therapeutic dose. Among the cytological changes, the increase in the size of the cell, nucleus and nucleolus as well as an early and persistent decrease in the mitotic number, and the rarity of distorted mitoses are noteworthy. 3 Hungarian, 3 Western references.

2/2

- 37 -

HENGETH, Laszlo

Ocular aspects of the autonomic system. Orv.hetil. 91 no.21:
652-655 21 My '50. (CLML 19:3)

1. Obstetric and Gynecologic Clinic (Director -- Dr. Ferenc Kovacs), Debrecen University.

FORGACS, Jozsef, dr.; NEMETH, Laszlo, dr.; ELEK, Emil, dr.

Cesarean section with potentiated local anesthesia. Orv. hetil. 103
no. 9:398-399 Mr '62.

1. Fovarosi Tetenyi uti korhaz, Szulo- es nobeteg-osztaly.

(CESAREAN SECTION anesth & anal)
(ANESTHESIA LOCAL)

NEMETH, Laszlo

Hydrogeological evaluation of the formations in the western part of the Mecsek Mountains. Tenszi műszaki 9 no.314-10 J1-3 '64.

FORGACS, Jozsef, dr.; NEMETH, Laszlo, dr.; ELEK, Emil, dr.

Thrombolytic therapy of cases of gynecological and obstetric thrombosis.
Orv. hetil. 103 no. 20:921-925 20 My '62.

1. Tetenyi-uti korhaz, Szulo es Nobeteg Osztaly.

(STREPTODORNASE AND STREPTOKINASE ther)
(THROMBOSIS ther) (GYNECOLOGY ther)
(PREGNANCY compl)

FORGACS, Jozsef, dr.; NEMETH, Laszlo, dr.

Some problems of the anticoagulant treatment of deep venous thrombosis in pregnancy. Orv. hetil. 105 no.25:1162-1165
21 Je'64

1. Fovarosi Tetenyi utu Korhaz, Szulo- es Nobeteg Osztaly.

NEMETH, L.

Measuring the dielectric constant and the loss angle of liquids by multiple reflection of microwaves. Péter Hegyi, János Németh, and Géza Schay, Jr. (MTA Elektromágneses Hullámtörök Osztálya, Budapest, Hung.). Majer 5

Tudományos Akad. Kézponví Pis. Különböző Intenzitású Kábelekben 4, 48-67(1958).—Electromagnetic radiations show multiple reflection from the boundaries of liquid dielectric layers. The mutual interference of these reflected rays disturb the detn. of the dielec. const. (ϵ) by the microwave method. This disturbing effect was studied, and it was found that it itself can be used for the detn. of ϵ and the loss angle. The app. consists of a 3.2-cm. reflex OSW-2013 Klystron tube, the output of which is fed into the measuring circuit, contg. a vertical wave conductor with square cross-section, through an attenuator. Another attenuator is provided to absorb the radiations reflected from the liquid in the measuring area. A crystal detector is used to indicate the transmitted microwave output. Another detector is provided to check the function of the oscillator. The layer thickness of the liquid can be varied from 3 to 8 cm. Construction data and operating techniques are given in detail. By exampl. toluene and EtOH-benzole mixts. it was found that the method is suitable for a tan δ range of 0.1-0.001 and that the accuracy is 2% for tan δ (a reduction can be effected by improving the amplitude and frequency stability) and 1% for ϵ (limited only by the accuracy of layer thickness and wave-length measurements). G. J. E.

NEBETH, L.

MEASUREMENT OF THE COMPLEX DIELECTRIC

CONSTANT OF LIQUIDS AT MICROWAVES USING THE EFFECT
OF MULTIPLE REFLECTION P. Hedvig, L. Neimark and G.S. May Jr.

Acta phys. Hungar., Vol. 6, No. 2, 137-8 (1953).

The transmitted intensity in a waveguide is measured at a
certain distance of sample thickness, standing waves either in front or
behind the sample being avoided by suitably placed attenuators.
Formulae are given for calculating ϵ and $\tan \delta$. The accuracy is
estimated to be 1% for ϵ and 2% for $\tan \delta$, assuming a liquid of medium
conductivity.

K.W. Lessner

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S'056/60/039/001/031 041/XX
B006/B056*24.6720*AUTHORS: Dneprovskiy, I. S., Nemet, L., Peker, L. K.TITLE: The Decay of Er¹⁶¹ 19PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960,
Vol. 39, No. 1(7), pp. 13-15

TEXT: After a short introductory discussion of the results obtained by other authors when investigating the transition energies of Er¹⁶¹ the authors of the present paper give a report on their own results. For the purpose of explaining the nature of the transition $\hbar\nu = 826$ kev of Er¹⁶¹, they bombarded tantalum with 660-Mev protons from the synchrocyclotron of the Otdeleniennyj institut jadernykh isledovaniij (Joint Institute of Nuclear Research) and investigated the radiation accompanying the erbium decay by means of a scintillation spectrometer and a double focusing β -spectrometer. The half life of this transition was measured as amounting to (190 ± 10) min, the energy determination gave a value of (826.5 ± 1.5) kev. For the purpose of determining the conversion coefficient

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The Decay of Er¹⁶¹S/056/60/039/001/031/041/XX
B006/B056

of this transition, the electron conversion line ratio and the ratio of the photopeaks of the gamma spectrum of this transition and of the 661.6-kev transition of the Ba¹³⁷ nucleus had to be measured. In this connection it was necessary to take the radiations of the two isotopes

Er¹⁶⁰ and Er¹⁵⁸, which also existed in the preparation, into account; the greatest correction was furnished by the gamma transitions 848 and 851 kev of the Ho¹⁵⁸-decay. In an earlier paper these transitions had already been investigated and had been identified as E2-transitions between the second and the first rotational band. The intensity ratio $I_{\gamma 826}/I_{\gamma 848 \text{ or } 851}$

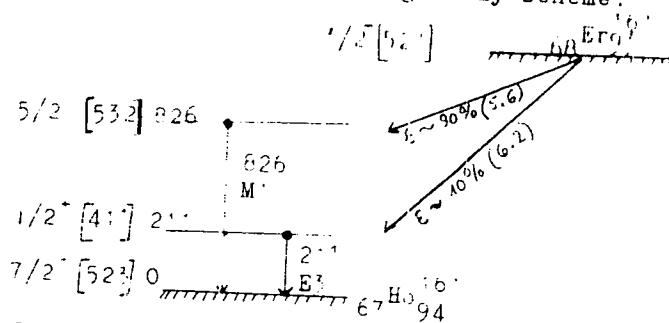
was determined as amounting to 4.0 ± 0.2 . If all corrections are taken into account, $\alpha_K = 0.008 \pm 0.002$ was obtained for the K-conversion coefficient of the 826-kev transition. According to the tables by L. A. Silliv and N. I. Bend, this gamma transition is of the type M¹ or E³. In order to arrive at a decision, the intensity ratio of the conversion lines K/L was measured and a value 7.0 ± 0.8 was obtained, which excludes the E³-type. The intensity ratio of the gamma transitions 2¹ and 826 kev was measured as

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The Decay of Er¹⁶¹S/056/60/039/001/031/041/xx
B006/B056

amounting to $I_{\gamma} 826/I_{\gamma} 211 = 8.0 \pm 1.5$. All results obtained by measurements are represented in the following decay scheme:



The authors finally thank I. A. Yutlandov and S. Khaynatskiy for carrying out the chemical work. There are 1 figure and 9 references: 4 Soviet and 5 US.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii Akademii nauk SSSR (Institute of Geochemistry and Analytical Chemistry of the Academy of Sciences, USSR)

Card 3/4

89246

S/048/61/025/001/012/031
B029/B060*24.6510*AUTHOR: Nemet, L.TITLE: Determination of α_K of the 143-kev transition in Pr^{141} with
the aid of a 4π -scintillation spectrometerPERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, v. 25,
no. 1, 1961, 68-69TEXT: The coefficient of internal conversion of the single gamma
transition ($E_\gamma = 143$ kev) appearing on the

$Ce^{141} \xrightarrow{\beta^-} Pr^{141}$ transition was determined by way of a comparison of the
number of KX transitions appearing in internal conversion with the number
of gamma quanta. In previous papers, this coefficient was found to be
 $\alpha_K = 0.22$ to $\alpha_K = 0.48$. Beta radiation was filtered through organic
glass and recording was made with a 128-channel analyzer of the type
AMA-3 (AMA-3). The Fig. attached shows the spectrum found by the authors.
 α_K is defined by $\alpha_K = N_X/N_\gamma W_f$, where W_f denotes the fluorescence yield,

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S/048/61/025/001/012/031
B029/B060Determination of α_K of the 143-kev...

and N_X and N_γ denote the numbers of X quanta and of gamma quanta, respectively. Furthermore,

$$N_X = \frac{N'_X}{\Pi_X \epsilon_X k_X} \quad N_\gamma = \frac{N'_\gamma}{\Pi_\gamma \epsilon_\gamma k_\gamma}, \text{ where } N'_X \text{ and } N'_\gamma \text{ are the penetration}$$

coefficients of the filter from organic glass, ϵ_X and ϵ_γ are the total efficiencies of the crystal; k_X and k_γ are the ratios between photopeaks and total value for the given radiation. W_f is equal to 0.90 ± 0.005 , and the following relation holds: $N'_X/N'_\gamma = 0.328 + 0.003$. The values

$\Pi_X = 0.975 \pm 0.005$ and $\Pi_\gamma = 1.00$ were calculated from the absorption coefficients. $\epsilon_X = 0.997 \pm 0.001$ and $\epsilon_\gamma = 0.992 \pm 0.002$ were determined by numerical integration over the volume of the CsI crystal ($\mu = 0.34 \text{ mm}^{-1}$ for 134 kev and $\mu > 6.0 \text{ mm}^{-1}$ for 37 kev). The determination of k involves that of the escape peak and the Compton scattering. For KX radiation ($h\nu = 37$ kev) the escape peak amounts to $20 \pm 2\%$ of the photopeak, if the source is situated outside of the peak. The authors found

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S/048/61/C25/001/012/C31
B029/3060Determination of α_K of the 143-kev...

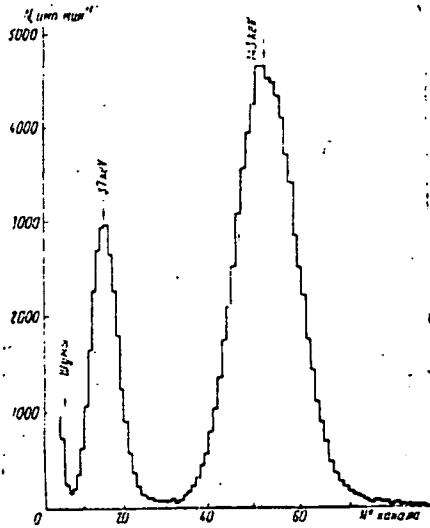
$\kappa_x = 0.986 \pm 0.002$. For gamma radiation ($h\nu = 143$ kev) the effect of Compton scattering and the action of the quantum emission in the fluorescence of iodine are negligibly small. The gamma line with ~ 100 -kev energy either belongs to Ce^{141} or to some impurity. Taking these and other circumstances into account, the authors found $\alpha_K = 0.376 \pm 0.006$. When the measurement was repeated with another CsI-Tl crystal (20 • 30 mm) they found $\alpha_K = 0.385 \pm 0.013$, and therefrom the mean value $\alpha_K = 0.379 \pm 0.005$. From the Tables by L. A. Sliv and I. M. Band (Ref. 11), it follows for the M1 transition: $\alpha_K = 0.403$ and for E2: $\alpha_K = 0.412$. V. N. Pokrovskiy and Ye. P. Grigor'yev are thanked for a discussion, and Yu. V. Narseyev for assistance in producing the Ce^{141} preparation. The article under consideration is the reproduction of a lecture delivered at the 10th All-Union Conference on Nuclear Spectroscopy, which took place in Moscow from January 19 to 27, 1960. There are 1 figure and 11 references: 1 Soviet-bloc and 4 non-Soviet-bloc.

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5/048/61/025/001/012/031
3029/3060

Determination of α_K of the 143-kev...



Card 4/4